
Chapter 2

Release Discovery

This chapter identifies methods for discovering releases of hazardous substances or pollutants or contaminants. Module A describes the role of the National Response Center as a clearinghouse for release notifications. Module B describes the discovery of releases through incidental observation, standard reporting requirements under federal and state law, and facility inspections. The information in this chapter applies to all removal actions.

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2.1 Introduction

2.1.1 Background

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the National Contingency Plan (NCP) outline a variety of methods for discovering and reporting releases of hazardous substances or pollutants or contaminants. In general, there are two primary ways releases are discovered and notification made to appropriate authorities: (1) discovery through National Response Center notification and (2) discovery by Department of Energy (DOE) facility personnel. The National Response Center serves two functions for release reporting. DOE is required to notify the National Response Center of releases exceeding their reportable quantity (**RQ**). The National Response Center, operated by the U.S. Coast Guard (**USCG**), is continuously manned (24 hours-a-day, 365 days-a-year) and serves as the national communications center for activities related to response actions. Also, the National Response Center may receive reports of releases from other sources such as the public. In these cases, the National Response Center will contact DOE personnel regarding the notification.

You should use this chapter to identify methods for discovering releases (also see Chapter 4, Module B for reporting requirements).

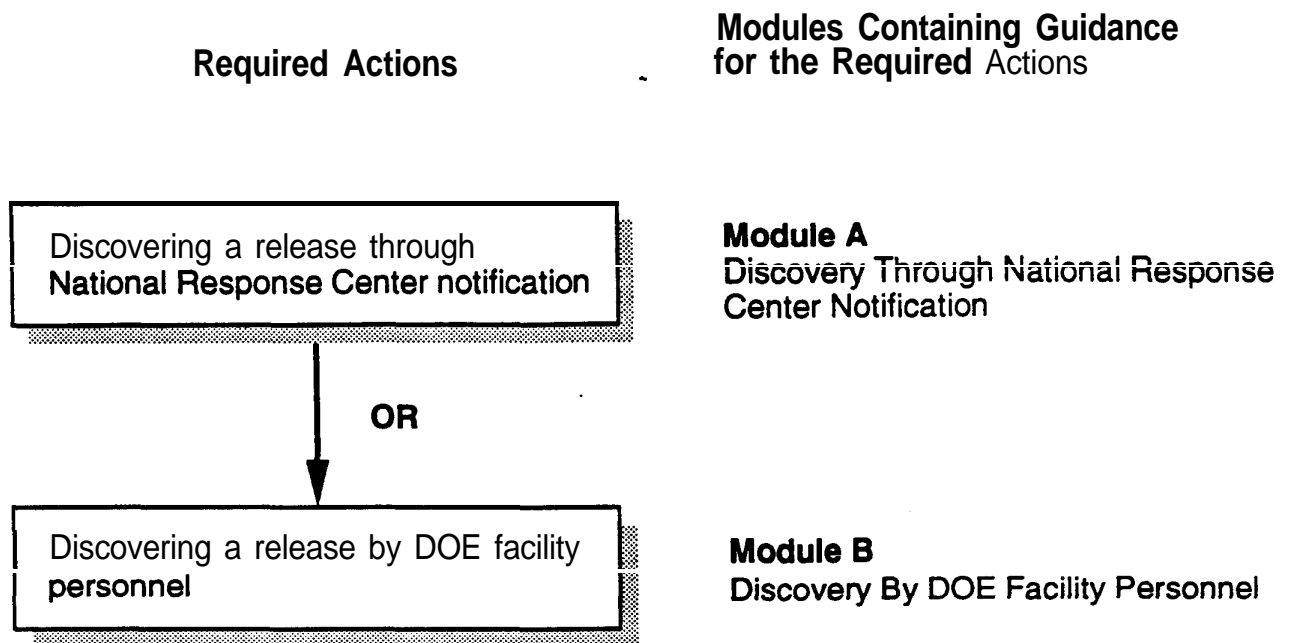
After discovering a release, you should proceed to Chapter 3, “Release Information,” to characterize more fully the nature and extent of the release. The method for discovering a release does not impact the process for determining the appropriate response.

2.1.2 Major Requirements

This chapter contains two modules (see Figure 2.1) as follows:

- **Module A: Discovery Through National Response Center Notification.** This module describes the role of the National Response Center as a clearinghouse for release notifications [40 CFR 300.125 and 300.405].
- **Module B: Discovery By DOE Facility Personnel.** This module describes discovery of releases through incidental observation, standard reporting requirements under federal and state law, and facility inspections.

Figure 2.1
Overview of Chapter 2: Release Discovery



2.2 Module A: Discovery Through National Response Center Notification

2.2.1 Introduction

Reports of releases to the National Response Center may be made by non-DOE personnel such as members of the public. Sections 300.125 and 300.405 of the NCP describe the role of the National Response Center for pollution incident reporting. Releases reported to the National Response Center probably have exceeded the RQ for that particular hazardous substance. Releases exceeding their RQ generally should be characterized further, as described in Chapter 3. National Response Center notifications provide valuable initial information for characterizing the nature and extent of the release (see Chapter 3). This module assists you in understanding the process for receiving and responding to notifications of possible releases from the National Response Center.

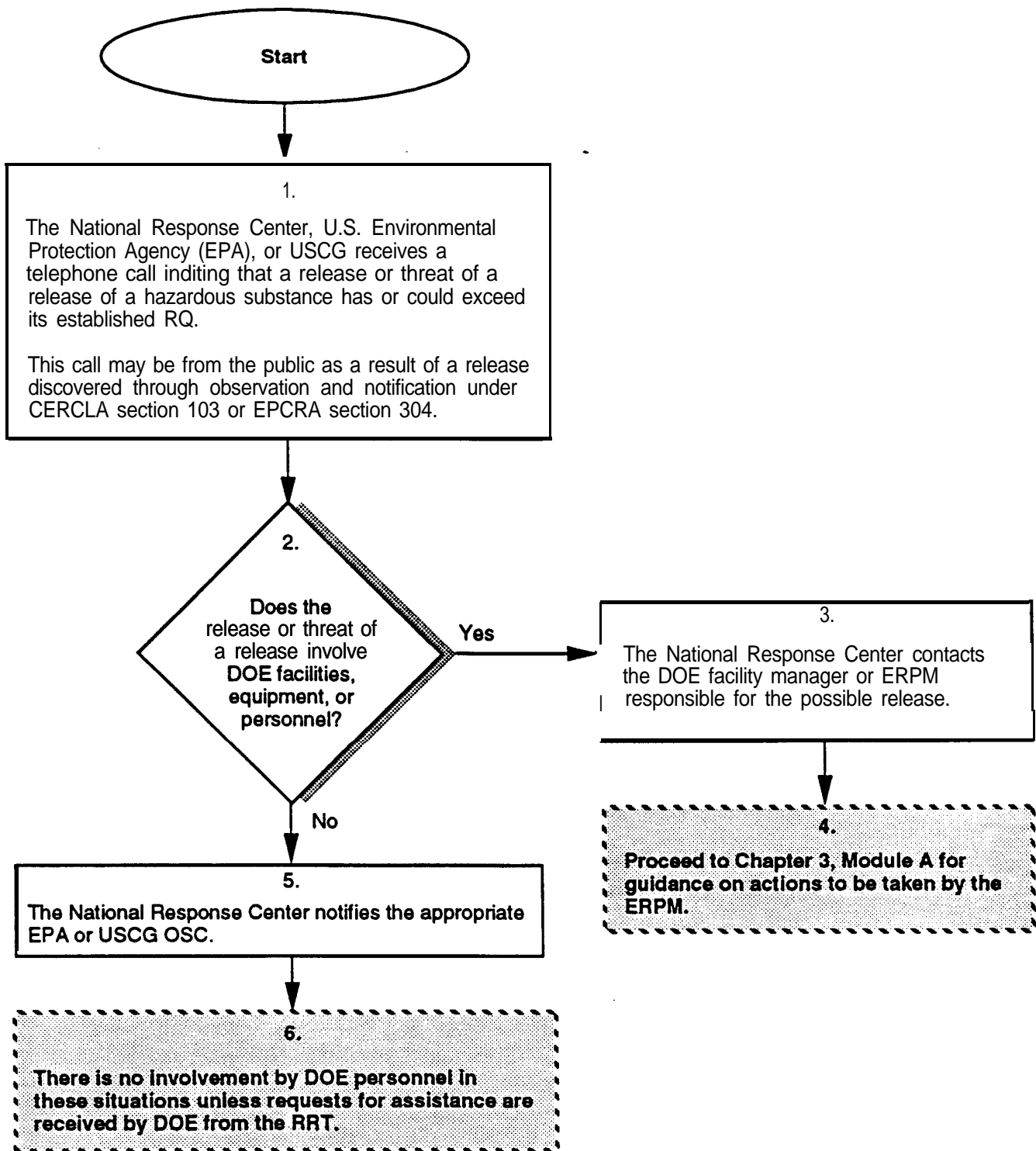
2.2.2 Milestones

If a release has been observed and reported to the National Response Center, the Environmental Restoration Program Manager (ERPM) should ask the following questions regarding the report:

- **Have CERCLA hazardous substances and/or extremely hazardous substances under the Emergency Planning and Community Right-to-Know Act (EPCRA) been released?**
- **Has the RQ established for a particular hazardous substance been exceeded?**
- **Does the release involve DOE facilities, equipment, or personnel?**

The following flowchart guides you through the process of discovering a release through National Response Center notification.

Figure 2.2
Discovery Through National Response Center Notification



2.2.3 Discovery Through National Response Center Notification

Step 1 Sections 103(a) and (b) of CERCLA require anyone with knowledge of a release of a hazardous substance that exceeds the RQ established for that substance during a 24-hour period to report the release to the National Response Center. Criminal sanctions may be imposed under CERCLA section 103 against individuals who fail to provide timely notice of a release of hazardous substances. The National Response Center can be reached 24 hours-a-day at (800) 424-8802. -Reportable quantities for CERCLA hazardous substances, as defined by CERCLA section 102(a), have been designated in 40 CFR 302.4. Exceeding these quantities may present substantial danger to public health, welfare, or the environment and may require a removal action.

Executive Order 12856 defines the term “person” under section 329(7) of EPCRA to include federal agencies. DOE’s policy is to comply fully with EPCRA reporting requirements (for more information, refer to DOE Orders 5500.1B, 5500.2B, 5500.3A, and 5500.10). Under EPCRA, extremely hazardous substances (**EHs**) that are not federally permitted releases and that result in exposure of persons other than employees must be reported to the National Response Center and other state and local planning organizations.

Step 2 Based on notification information, the National Response Center contacts the appropriate DOE official for information about the release. The National Response Center prepares a report. This report generally contains information that will help determine whether DOE personnel, equipment, or facilities have been affected by the release.

Step 3 If the release involves DOE personnel, equipment, or facilities, then the National Response Center receives and immediately relays telephone reports of the release to the appropriate DOE official.

Step 4 Upon receipt of the release notification from the National Response Center, the ERPM begins characterizing the release more fully, as described in Chapter 3.

Step 5 If the release does not involve DOE personnel, facilities, or equipment, the appropriate designated EPA or USCG On-Scene Coordinator (OSC) is contacted to pursue possible response actions.

Step 6 DOE is not involved in EPA or USCG responses unless its assistance is requested through the Regional Response Team (**RRT**). For example, DOE may provide assistance in addressing radiological releases (see NCP section 300.115).

2.3 Module B: Discovery By DOE Facility Personnel

2.3.1 Introduction

Regardless of how a release is discovered, reports of releases may need to be made to the National Response Center in accordance with NCP 300.405(a)(1) (see Chapter 3). As described in Module A, the National Response Center may notify the ERPM of releases involving DOE personnel, facilities, or equipment. Releases also may be discovered through investigations by governmental authorities, incidental observations, and formal reporting under permitting procedures and other statutory and regulatory authorities. You should use this guidance to familiarize yourself with the major ways to identify releases or potential releases other than through the National Response Center.

2.3.2 Milestones

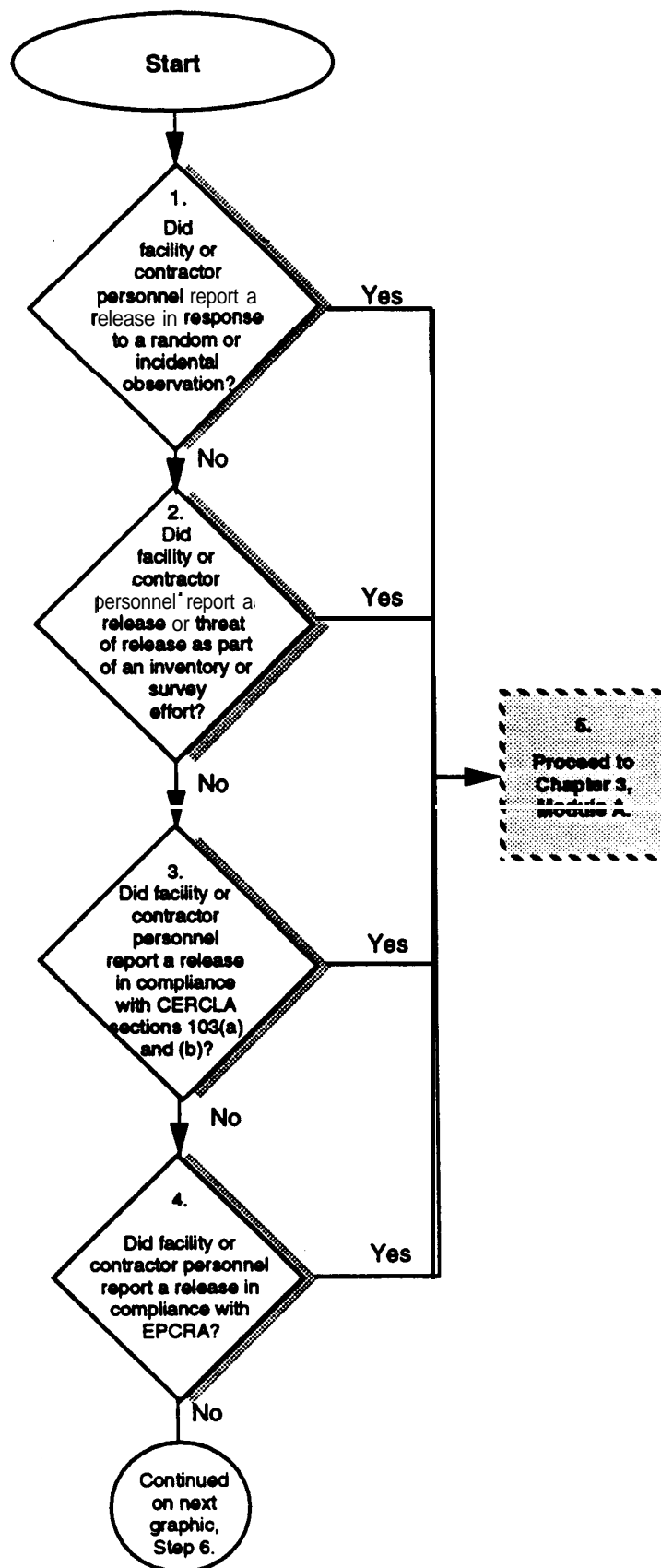
If a National Response Center report has not been made, the ERPM should ask the following questions to determine whether other discovery mechanisms have identified a release or threat of a release at a DOE facility:

- **Has the release been discovered through a response to a random or incidental observation?**
- **Has the release been discovered through a formal inventory or survey?**
- **Has the release been discovered through formal reporting under CERCLA sections 103 or 120, or EPCRA section 304?**
- **Has the release been discovered through a formal self-assessment or facility inspection?**
- **Has the release been discovered through a permitting process?**

The following flowchart guides you through the process of discovering releases through DOE facility personnel.

Figure 2.3(1)
Discovery By DOE Facility Personnel

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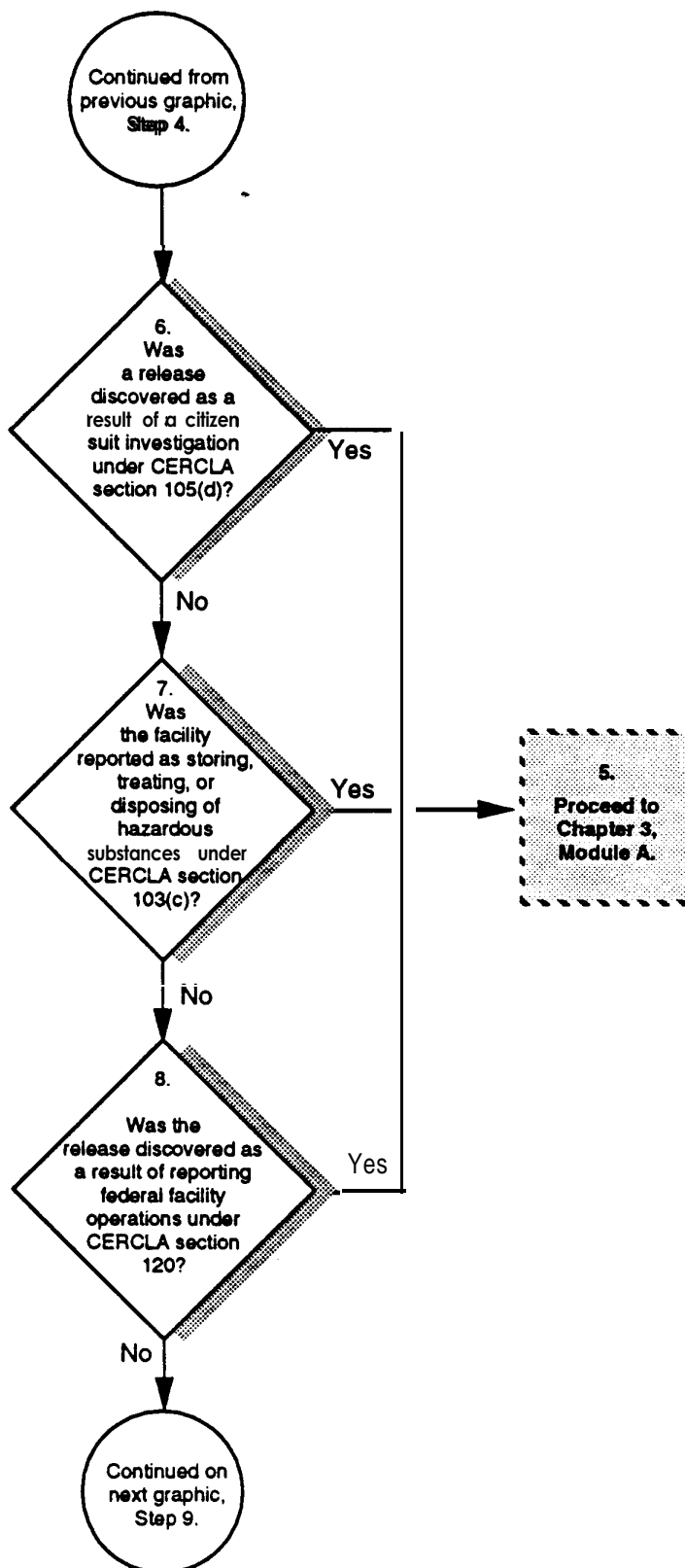


2.3.3 Discovery By DOE Facility Personnel

- Step 1** Facility personnel may detect releases of hazardous substances or pollutants or contaminants through random observation while conducting routine duties. These observations should be reported to the ERPM, who immediately may notify the National Response Center in accordance with NCP section **300.405(a)(1)**, the State Emergency Response Commission (SERC), and the Local Emergency Planning Committee (LEPC), as appropriate. In addition, emergency responses to incidents involving the release of hazardous substances or pollutants or contaminants may be conducted. Examples would include response to vehicle or rail accidents, response to abandoned or buried drums, and response to accidents at facilities that manage hazardous substances as part of their normal operations. Emergency situations may be discovered and reported through normal emergency response channels (e.g., fire and rescue services or operations personnel) and often require immediate action to stabilize the situation. In addition to responding to such incidents occurring within the boundaries of a federal facility, federal agencies can assist with responses outside their facility boundaries as part of EPA's or a **state/local** response effort. **The** ERPM may serve as the focal point for all DOE assistance to local emergency service agencies.
- step 2** Under EPCRA, facilities that store extremely hazardous substances may be required to inventory and report the quantity and types of substances stored and any releases on a yearly basis. These reports **are** submitted to the **SERCs** and **LEPCs** and may indicate the need to undertake a removal action.
- Step 3** See Module A, Step 1.
- Step 4** See Module A, Step 1.
- Step 5** If a release has been discovered as a result of Steps 1 through 11, the ERPM should proceed to characterizing the release, as described in Chapter 3.

Figure 2.3(2)
Discovery By DOE Facility Personnel

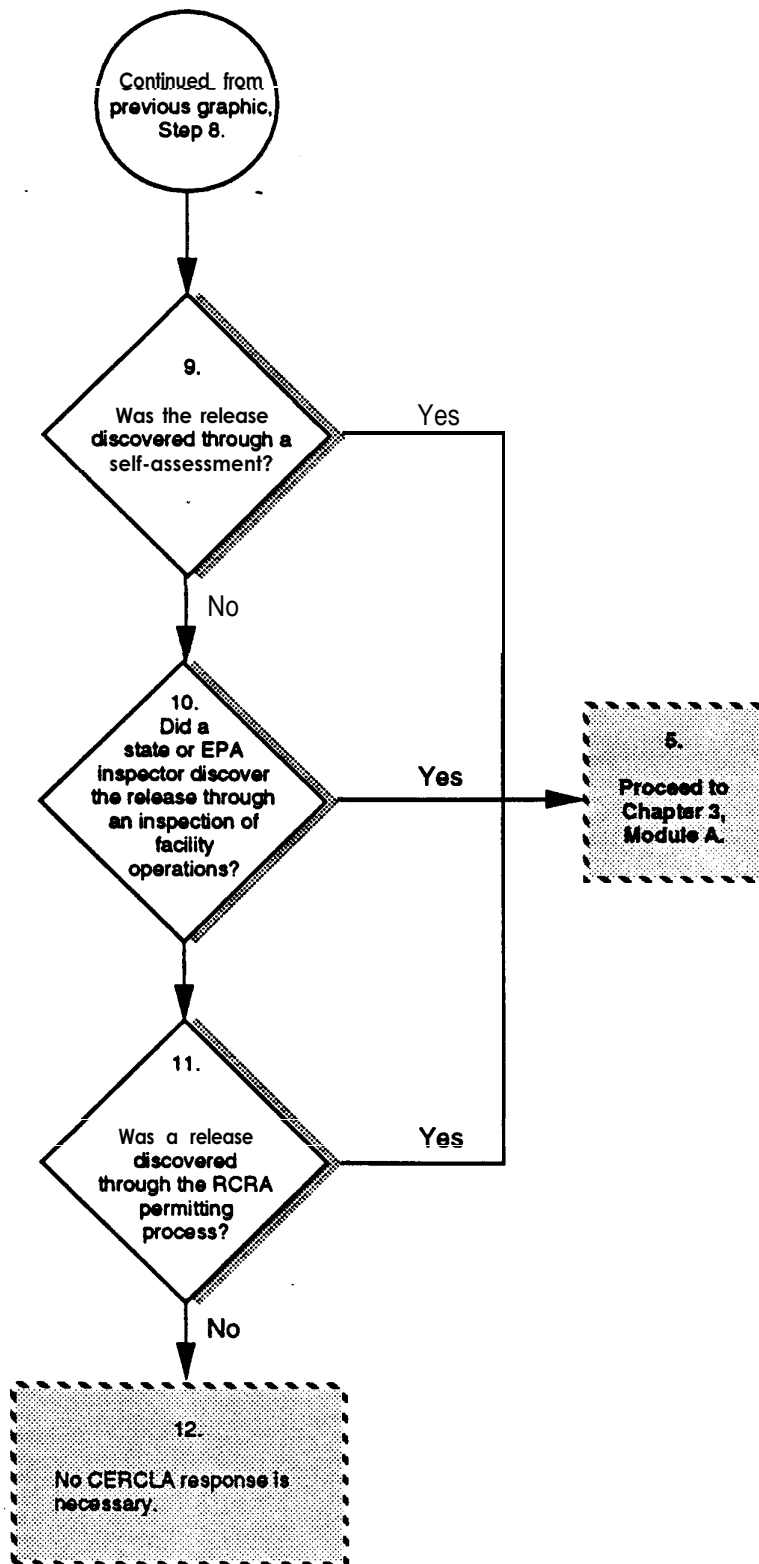
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- Step 6** Under CERCLA section 105(d), any person who is, or may be, affected by a release or a threat of release of a hazardous substance or pollutant or contaminant may petition EPA to have a preliminary assessment (PA) conducted of the hazards associated with the release. If the release is occurring at a federal facility, the agency with administrative responsibility for the facility is required to conduct the investigation. The investigation may discover a release or provide additional information that once evaluated by the ERPM may warrant or justify additional CERCLA response actions.
- Step 7** Under CERCLA 103(c), facilities (other than those operating under a Resource Conservation and Recovery Act (RCRA) Subtitle C permit or interim status) where hazardous substances were treated, stored, or disposed of, should have been reported to EPA within 180 days of December 11, 1980. This reporting requirement led to the discovery of hundreds of sites where releases of hazardous substances posed an immediate threat to human health or the environment. Many of these sites conducted removal actions to stabilize, minimize, or eliminate such threats while the facility developed and implemented a long-term solution under the CERCLA remedial program. The ERPM should contact the National Response Center to determine if a particular DOE facility was reported to EPA under CERCLA section 103(c).
- Step 8** CERCLA section 120 requires a list of all federal facilities reported under RCRA sections 3005, 3010, and 3016 and CERCLA section 103. This list is known as the Federal Agency Hazardous Waste Compliance Docket. Within 18 months of listing on the docket, federal agencies must assess the site for possible removal or remedial action. Section 120 also requires federal agencies to provide information on the storage, disposal, or release of hazardous substances on properties that are being transferred. The ERPM should refer to CERCLA Information Brief **DOE/EH-231-011/0192**, “Federal Agency Hazardous Waste Compliance Docket” for additional information on how facilities are listed.

Figure 2.3(3)
Discovery By DOE Facility Personnel

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- Step 9** The DOE “self-assessment” program is a comprehensive environmental compliance inspection program. During a “self-assessment,” facility operations are examined to determine the extent of compliance with applicable environmental and health and safety laws and regulations. As a result of such an inspection program, releases may be discovered and/or characterized and areas of non-compliance may be addressed.
- Step 10** In addition to compliance inspections conducted by DOE, EPA has statutory authority to conduct compliance inspections of federal facilities under CERCLA section 104(e), RCRA section **3007(c)**, the Toxic Substances Control Act (TSCA) section 11, and other federal environmental statutes. During these inspections, EPA may discover releases of hazardous substances or pollutants or contaminants that require a CERCLA response. EPA submits reports to DOE outlining their inspection findings.
- Step 11** When a facility submits an application for a RCRA Subtitle C permit to operate a hazardous waste treatment, storage, or disposal facility (TSDF), EPA or the state, with input from DOE, conducts a RCRA Facility Assessment (**RFA**) to determine if there are actual or potential releases of hazardous wastes or hazardous waste constituents from the solid waste management units (**SWMUs**) at the facility. If a release of a hazardous waste or hazardous waste constituent is discovered during the RFA, EPA or the state may request the facility to address the release through the RCRA corrective action program rather than through CERCLA. However, if the RFA identifies a release of a material that is a CERCLA hazardous substance and that is not a hazardous waste or hazardous waste constituent (e.g., radionuclides), EPA or the state may require the facility to conduct a CERCLA response.
- Step 12** If a release or threat of release has not been discovered, no further action is taken and the ERPM does not need to proceed to subsequent chapters of this guidance.

2.4 Summary Milestones for Chapter 2

		YES	NO	N/A
Module A	If a release has been observed and reported to the National Response Center, the Environmental Restoration Program Manager (ERPM) should ask the following questions regarding the report:			
	Have CERCLA hazardous substances and/or extremely hazardous substances under EPCRA been released?	_____	_____	_____
	Has the RQ established for a particular hazardous substance been exceeded?	_____	_____	_____
	Does the release involve DOE facilities, equipment, or personnel?	_____	_____	_____
Module B	If a National Response Center report has not been made, the ERPM should ask the following questions to determine whether other discovery mechanisms have identified a release or threat of release at a DOE facility:			
	Has the release been discovered through a response to a random or incidental observation?	_____	_____	_____
	Has the release been discovered through a formal inventory or survey?	_____	_____	_____
	Has the release been discovered through formal reporting under CERCLA sections 103 or 120, or EPCRA section 304?	_____	_____	_____
	Has the release been discovered through a formal self-assessment or facility inspection?	_____	_____	_____
	Has the release been discovered through a permitting process?	_____	_____	_____

2.5 Sample Scenarios

This chapter has identified many ways in which releases of hazardous substances or pollutants or contaminants can be discovered. The following five scenarios provide examples of the CERCLA discovery process.

- Scenario 1:** More than 200 pounds of 1,4-Dichlorobenzene were accidentally released when a valve on an aboveground storage tank at a DOE facility malfunctioned. The chemical was migrating outside the facility boundaries. The RQ for this chemical, as listed in Table 302.4, is 100 pounds. Facility personnel responsible for maintaining the tank immediately notified the ERPM, who initiated an emergency response action and then contacted the National Response Center.
- Scenario 2:** An investigation of a DOE facility identified 50 drums of unknown chemicals actively leaking, with material being carried off site via storm water drainage. The investigation team notified the ERPM, who mobilized an investigation team to determine the contents of the drums. The National Response Center was not notified because the unknown chemicals were found not to be hazardous substances.
- Scenario 3:** Five abandoned drums were found by hikers on land adjacent to a DOE facility. The drums appeared to be stable with no signs of leakage. State officials were contacted, who responded by removing the drums. No DOE response was necessary since the potential release did not involve DOE or DOE contractor personnel, facilities, or equipment. The drums were traced to a private company, which voluntarily conducted the removal.
- Scenario 4:** DOE is seeking a permit to operate a temporary hazardous waste storage facility at one of its plants. As part of the permit process, EPA conducts a RCRA Facility Assessment in cooperation with DOE and determines that there is a potential for hazardous substances to be released at two of the solid waste management units. EPA notifies the ERPM of this potential release, who investigates the potential threat and determines immediate action is necessary. The National Response Center is notified of the action.
- Scenario 5:** Members of an Indian Reservation have petitioned EPA to assess the hazards associated with operations at a drum staging area near the reservation. DOE investigates and discovers a release of 20 pounds of toluene, a release far below the RQ for that substance. DOE addresses the release but does not report it to the National Response Center since the hazardous substance RQ was not exceeded.

2.6 References

1. Code of Federal Regulations, Title 40, Part **300**, National Oil and Hazardous Substances Pollution Contingency Plan (NCP).
2. Code of Federal Regulations, Title 40, Part 302, Designation, Reportable Quantities, and Notification.
3. 15 U.S.C. **§2601** et. seq. The Toxic Substances Control Act (TSCA).
4. 42 U.S.C. **§11001** et. seq. The Emergency Planning and Community Right-to-Know Act (EPCRA).
5. 42 U.S.C. **§6901** et. seq. The Resource Conservation and Recovery Act (RCRA) as amended by the Hazardous and Solid Waste Amendments (HSWA).
6. 42 U.S.C. **§9601** et. seq. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA).
7. Executive Order 12856: Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements (58 FR 4198 1, August 6, 1993)
8. U.S. EPA. Superfund Removal Procedures: Revision Number Three (OSWER Publication No. **9360.0-03B**). Washington, DC: U.S. EPA, 1988.
9. U.S. DOE Order **5500.1B**: Emergency Management System. Washington, DC: U.S. DOE, April 30, 1991.
10. U.S. DOE Order **5500.2B**: Emergency Categories, Classes, and Notification and Reporting Requirements. Washington, DC: U.S. DOE, April 1991.
11. U.S. DOE. Order **5500.3A**: Planning and Preparedness for Operational Emergencies. Washington, DC: U.S. DOE, April 1991.
12. U.S. DOE. Order 5500.10: Emergency Readiness Assurance Program. Washington, DC: U.S. DOE, April 1991.
13. U.S. DOE. Emergency Planning and Community Right-to-Know Act (EPCRA) Guidance. (**DOE/EH-0181P**). Washington, DC: U.S. DOE, March 1991.
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17. U.S. DOE. RCRA Corrective Action Program Guide (**DOE/EH-0323**). Washington, DC: U.S. DOE, May 1993.